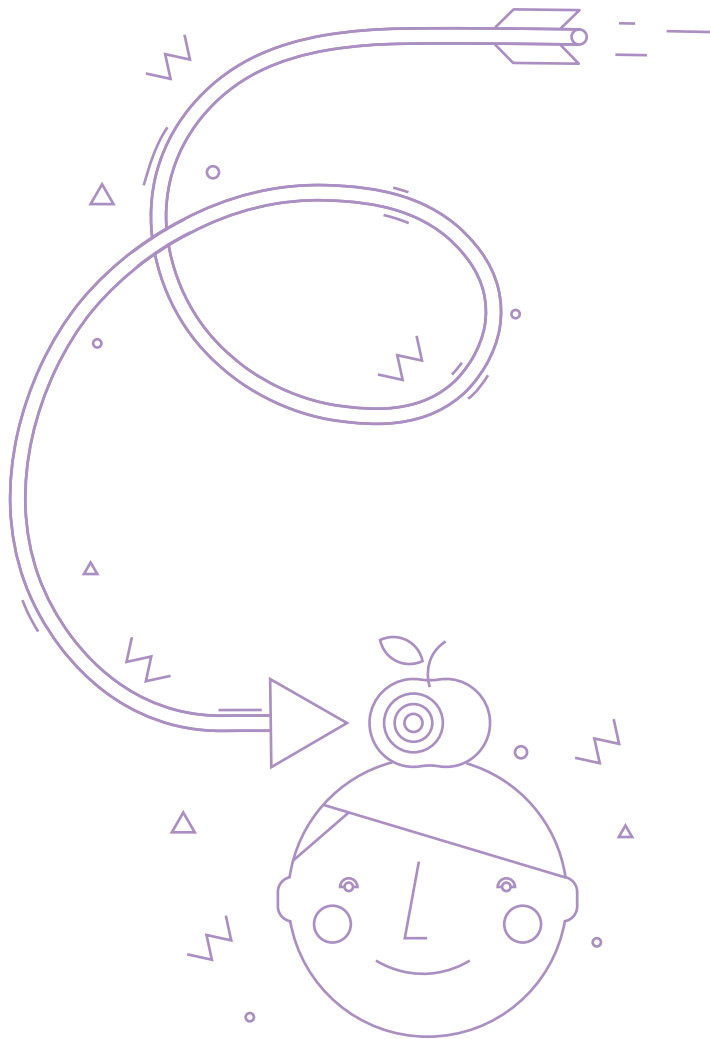


# THE ULTIMATE GUIDE TO WEBSITE PERSONALIZATION



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## Overview

There is a new Gold Rush going on right now, and the gold of the 21st century is data. If you walked into your CFO's office and asked how much is the net value of your company's data, you would be surprised how high that number is. The value of that intellectual property is probably close to the valuation of the organizations human capital or physical assets.

### IMPACT ON PURCHASING INTENT

**46%** of customers would purchase more from retailers who personalize the experience across channels ➡

And yet is data really treated as an asset? It's unthinkable to have most of your employees underutilized, reporting to no one and creating no incremental value. But when it comes to customer data, this is actually the norm. Data is rarely

utilized, to even a fraction of its potential, and there are large collections of data that nobody owns. Getting access to this data is difficult, and incorporating it in processes is nearly impossible. This opens a huge growth opportunity, hiding in database servers in the form of 0s and 1s waiting to create revenue. The only question is, how you can make the most of it, fast?

There is a wealth of methods to put your company's data to work; by far, personalization is one of the most exciting and effective. Just look at online giants such as Google, Netflix or Amazon, and you'll find living proof that data is a resource that helps build a digital empire.

But then again, when was the last time you opened a website that wasn't Google or Facebook, whether that was your own, a competitors or any other company, and noticed they are showing something personalized and relevant to you? Even though personalization and better customer experience has been the buzz in digital technology for many years, successful examples are few and far between.

Customers are demanding personalization, but they are not truly getting it from every brand. Organizations are investing in technology that can provide personalization but not implementing it fast enough. This is both bad news and good news. The bad news is there is more to personalization than flipping a switch. There are 6-, 12-, sometimes even 18-month strategies to be planned and executed before you truly become efficient in personalizing customer experience on a large scale. But, the good news is you have data you're to mine. Even better, your competition is likely no farther along than you are.

This guide will get you a step ahead, because you will be armed with strategies to set the groundwork for an optimized, ever-improving plan to drive bottom-line impact using personalization.

## In Brief

This guide is divided in six different sections.  
Some of the key things you will learn include:

- 1. How Personalization Works:** Various types of personalization can assist with different levels of the customer journey. You can use educated hypotheses or analytics to decide how and what to personalize and align it with your business goals.
- 2. How Personalization Can Improve the Funnel:** Use a data-driven perspective to pick which data points will improve various conversion rates.
- 3. Challenges:** Personalization as a lean, iterative process holds promise, but it poses a lot of challenges in the way we currently adopt technology. To truly scale with personalization, we must incorporate best practices in our systems of engagement that will enable quick iterations and an evolving personalization strategy.
- 4. Personalization and Content Management:** The right content strategy is a core pillar to personalization. Proper content architecture can enable organizations to deliver personalized experiences quicker and better.
- 5. Personalization and Analytics:** Analytics is key to personalization. Analytics can assist with segmentation and idea generation, helping you decide what to personalize and for whom. Analytics also enables you to incorporate clean, simple frameworks such as personas within personalization.
- 6. Bridging the Channels:** The need to deliver a consistent personalized message across channels will drive a lot of your efforts going forward.

# How Personalization Works

Personalization can be defined as the process of creating experiences targeted to each individual. It means presenting different content aligned to the specific characteristics of each person (interests, social category, demographics, context). In this guide we will focus on personalization in the context of the web, however a lot of these principles are applicable for other channels such as mobile, email and even print. In the final chapter, “Bridging the Channels” we will discuss how to achieve consistency of a personalized message across different channels.

## OPPORTUNITY VS. REALITY

**78%** of companies say personalization based on purchase history has high impact on ROI, yet only 38% of companies use that data ➔

Various types of personalization can be classified in different ways, according to the type of data they use (geography, browsing history and so on), the layer of intelligence they put on top of that data (such as persona or likelihood of purchase) and the channel they target (mobile, web or email).

If you look at personalization based on types of data it uses, it can be categorized into three areas:



**IMPLICIT:** A user's behavior is monitored and used for personalization and targeting



**EXPLICIT:** The user's profile and preferences determine the personalization



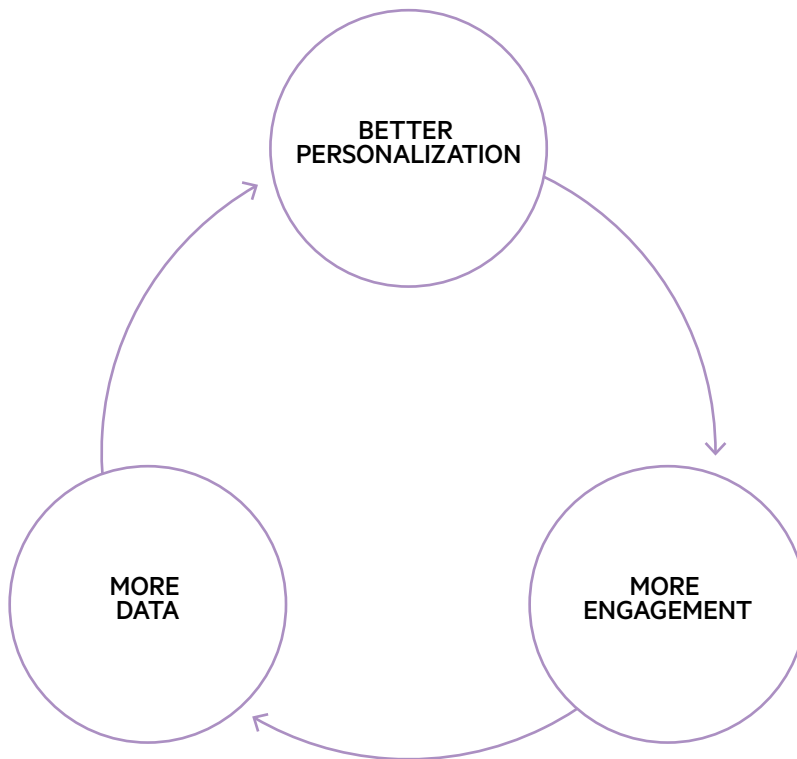
**HYBRID:** Both explicit and implicit characteristics are used

Organizations typically aspire to a hybrid approach, which enables them to augment what they learn about a customer by their behavior with what with information they gather and store in various systems of record, such as a CRM.

In the next section, we will explore a slightly different classification with a more practical take: using a type of personalized appropriate for where the individual is along the customer journey.

# Personalization According to the Customer Journey

Let's explore at the data points available to form a conclusion about context or intent, and look at what personalization opportunities we have on each step of the customer journey. Doing so enables us to identify new personalization opportunities as more and more data becomes available. This process is cyclical; each step enriches the next:



So what data is available? Below, you can see a chart indicating the various data points you can capture and use within the different steps of the journey.

## THE ENRICHMENT OF DATA PERSPECTIVE

0 CLICKS	0 - 10 CLICKS	UPON IDENTIFICATION	UPON PURCHASE
↓	↓	↓	↓
IP, INFERRED LOCATION	BROWSING HISTORY	EMAIL	PURCHASE HISTORY
INFERRED COMPANY	ON-SITE SEARCH	CRM DATA	ADDRESS
CAMPAIGN PARAMETERS	NAVIGATION BEHAVIOR	FORM DATA	SATISFACTION
SEARCH KEYWORDS	PERSONA	PAST BROWSING	
OFF-SITE BROWSING	CONVERSION LIKELIHOOD	SOCIAL DATA	

## 0 Clicks

A lot of information is learned upon the first visit. First-touch implicit personalization is extremely powerful, because it helps you address the highest volume of users: anonymous visitors. First-touch personalization helps reduce bounce rates and improve initial conversion rates from visitor to lead.

Each time a visitor lands on your site, he issues an HTTP request to your server, which provides a wealth of information. Here are some of the data points you can capture from anonymous visitors:

→ **IP address:** IP address is the unique address of each visitor. In itself, it's just a number that doesn't give you much information, but when you know what different IP addresses mean, it can become very useful. If you know your competitor's IP address, for example, you can block them or hide information, or you can show specialized personalization for your internal employees. There is a limit to how many IP address blocks you can know, and for that reason, so there are services and databases that specialize in cataloguing IP addresses and providing deeper information such as location, company name or even industry.

→ **Location:** Location can be inferred by IP address or determined based on geolocation of a device. Various cities, countries and even neighborhoods have blocks of IP addresses dedicated to them, which makes IP-based location detection possible without the need to ask for permission. Because those IP blocks constantly change and introduce exceptions, IP-based detection can be less accurate. Accuracy is typically over 95 percent, depending on the service you use. In a mobile environment, geolocation-based detection can be very accurate—up to a few feet—but will require

permission that customers are rarely willing to give. A third alternative that also only works with mobile apps is using a protocol such as iBeacon. This technology relies on small devices placed in locations such as stores, airports or stadiums that transmit low-energy Bluetooth-based proximity sensing; if someone walks by that device and has your app installed, you will know. It works in more limited use cases, but it doesn't require access to device location, which is a difficult permission to obtain.

→ **Company name:** Companies often have known allocated IP address blocks, which means each company's IP addresses can be catalogued in a database. Marketing Automation and B2B marketing solutions such as Marketo and DemandBase collect this information and offer services for reverse company name lookup. Once you know an IP address, they can, with some level of accuracy, guess a company name. What does that mean to you? Well, you can personalize for your customers, even without having them identify themselves, detect Fortune 500 companies, target large customers or anyone else you may want to treat in a special manner within your marketing funnel.

→ **Referring page, landing page and campaign parameters:** Referring Page, Landing Page and Campaign Parameters provide very convenient connections to the demand generation process. Campaign parameters are very often incorporated in ads, social media posts or any external efforts. These parameters can help you determine which campaign or external source a person came from, which is a really good indicator on their context. If they are referred from a website that has information for consumers, you can highlight online deals, if they are referred from a B2B focused site and may be an enterprise buyer, you can highlight solutions and change all calls to action to be quote requests for example.

→ **Search keywords:** Search keywords are arguably the most powerful indicator for intent: the visitor is telling search engines what they are looking for. If you know this information, you can tailor the offer to show exactly the desired products and services. In the past, search engines usually appended search keywords to the requests parameters, which can be used for personalization. However, now search engines such as Google have started encrypting search engine queries, and systems are not able to use them for personalization for a large portion of visitors. Therefore, personalization right after organic search has become impractical, if not impossible. The good news is you can leverage keywords from paid searches and use those parameters, instead.

→ **Time of day:** Time of day is not as universal as the other data point, but might be compelling for some industries such as the restaurant or travel industry, where specials vary according to the time of day.

→ **Type of browser:** Type of browser is another data point that can be detected. In the past this was used to redirect users to a mobile version of the site. With the wide adoption of responsive design today, knowing the browser type gives a marketer very little power.

As you can see, even on a visitor's first click you can determine powerful ways to personalize their experience. But the opportunity behind these personalization parameters is still limited; they are useful in getting a visitor from click zero to click one and two, but none of them are good indicators of customer intent.

As marketers, we like to capture data and guess intent as early as possible to create the best experience, and this goal applies even for our first-time anonymous visitors, but this capability is limited. The best strategy is to align personalization with demand generation tactics—plan targeted ads, social campaigns, ad and search keywords together with personalized versions of content so that you can infer intent from the outbound channel and build the journey out from there. This is the equivalent of building multiple doors to your house and using the door people walked in from to determine their welcome message. As the journey continues, we can start deducing their areas of interest based on other parameters, such as their behavior.



## 0-10 Clicks

You should think of your personalization strategy as a learning strategy. The data points you get from an individual's first visit are abundant, but the next step is to start learning more about the visitor's context and intent. This could include explicit data they have entered, data that we have as CRM records as well as data we learn from various behavioral patterns. It's generally considered bad user experience to have a popup or some other distracting tactic ask about user intent. A much more natural approach is to leave the experience uninterrupted and learn that information naturally, based on behavior. Once a user starts interacting with a website, here is what we might learn:

→ **Browsing history:** This could include resources they have visited and resources they have not visited. Both are strong indicators of intent. Because you are trying to guess what a visitor is looking for based on what they click on, it's crucial to align your personalization strategy with the overall user experience. The rule of thumb is to look at the average page views per visitor. For example, if the average visitor views 2.6 pages, this means that if you want get most out of your visitors, you should make your targeted conversion goal within 2-3 clicks. To be successful you would have to personalize immediately, as this is not a very big window of opportunity. Make sure that your home page, landing pages and navigation provide really good visual cues for qualifying visitors, such as exposing the industries or types of buyers you serve in the navigation.

For example if you have buyers from the automotive and manufacturing industries, it makes sense to have highly visible links labeled "Solutions for Manufacturing" either on the home page or within the navigation. Clicking on that links is a strong indicator of industry vertical, especially if the visitor doesn't click on any other industry.

→ **Time on site:** The longer a visitor stays on a site, the greater the conversion opportunity. Again, rule of thumb is to look at the average conversion cycle and start shifting from informational materials to promotions right around the 50-60% duration of that time—if it takes seven minutes on average to make a purchase, you can start showing promotions around the 4-minute mark. It depends on the business; in general, if the lead is not ready to convert, often it's better to provide calls to action offering information instead of one pushing for a purchase.

→ **Persona:** Having a visitor qualified as a persona is arguably the most powerful technique in personalization. Creating personas involves capturing information from various different channels and classifies your visitors in buckets—the so-called "personas". While there is no limit or to the number of personas that can be defined, most businesses find 3-5 to be manageable and effective. Personas can be assigned based upon browsing history patterns and other personal information. Think of personas as providing a more sophisticated framework to classify behavior.

→ **Lead score:** Just as a persona is a more sophisticated composite parameter to indicate demographics or interest, lead scoring is a more sophisticated composite parameter to indicate purchase intent. In lead scoring, you score parameters such as "looking at pricing" or "entering contact information," as they are positive indicators of intent. Once enough of these interactions have accumulated, you can deem the prospect as "purchase-ready". Personalization based on lead scoring is very powerful, because it helps you adjust tactics and evaluate where a person is in the decision cycle.

→ **Predictive lead score/conversion propensity:** Predictive lead scoring takes things to a higher level. Instead of scoring interactions and deciding which ones are indicators of purchase intent, an algorithm does that for you. That algorithm looks at all the different people who have converted, and documents all the interactions and characteristics they have in common. If coming from the U.S. is a better predictor than visiting the Contact Us page, the algorithm will note that. With predictive scoring, you don't have to manually maintain a scoring model; the algorithm does that for you depending on what has actually been successful in driving conversions.

Personalization based on predictive lead scoring is powerful, because the algorithm can identify the segments you want to target to reach your goal. Such targeting could be based on one characteristic, for example, geography, or it can be based on a combination of many characteristics. Your best segment to target this month could be visitors from the U.S. who visited to the manufacturing industry solutions page, saw a video and didn't request a quote. The algorithm will tell you that and let you personalize the appropriate content, program or other call to action.

## Upon Identification

So far, the assumption is the visitor is entirely anonymous—you don't have any contact information or other data. The parameters above are just as valid if the user is known. Even before a visitor has identified himself, you can provide very compelling targeted experiences, but beyond retargeting, you have limited mechanisms to bring people back to your site once they are gone. A visitor's contact information is a very valuable asset, and it is an art form to find the best way to request it, whether you're providing valuable content and thought leadership materials, enough compelling calls to action for users to request information or other creative methods, user identification should be a goal in itself, as it opens a lot of other possible personalization opportunities. Here are some of that the data points that become available to you.

→ Profile data/form data: This is data you ask for. There are a wealth of studies and resources on what is the “Goldilocks” amount of information to ask, in other words, not too little, not too much. This research boils down to a simple fact: the more information you ask for, the more value you have to provide. Think of your digital marketing not just as a way to promote your products, but consider that some of your digital marketing efforts are mini-products by themselves. The better they are, the more information a visitor will be willing to give you. Good examples are product configurators, ROI calculators, various online assessment tools, creative tie-ins with social media and the like.

→ User role: An extremely important asset, especially in intranet, extranet and membership-driven scenarios such as associations. Personalization based on user role can provide a contextual experience to the user and drive them to either increase engagement, consider higher-level membership or convert to any other goal you are targeting.

→ CRM data: Email, specifically, is a powerful key to connect personalization with the wealth of CRM data you have. If you have a relationship with visitors already, and you often do, pulling this information and using it for personalization can be a very powerful way to drive them to convert to leads.

→ Social data: Getting access to the user's social identity and social data can also prove to be very powerful. Once again, you have to present a compelling product to trade or have a labor-saving device such as offering a social login. Social Graph data such as knowing your Facebook profile, likes, friends and interests is helpful, but needs to be earned, as customers are very reluctant to grant any kind of permissions or access their social profiles.

## Upon Purchase

The typical end of the funnel—a conversion such as a purchase—does not mark the end of personalization opportunities. In a lot of cases, it's just the beginning. Calculating metrics such as average deal size, customer lifetime value and return rates usually indicates return clients are the biggest spenders. After a purchase, you still have a variety of data points available, but those data points can be augmented with purchase history, customer satisfaction and various other relationship indicators. A purchase also usually opens new channels for marketing, such as mobile, text and print.

# Personalization and the Customer Journey

So many options! Where do you start? The answer to this depends, of course, on your business objectives. The benefit of building up your data for personalization purposes is you now have a framework with which to impact conversion rates. This is how personalization can work for the various stages of the customer journey:

1. Upon the first impression, you can personalize and you can use data such as location or referring URL to provide relevant, contextual content and decrease bounce rates.
2. You have a chance to trigger a conversion upon the first few clicks. This is an opportunity to utilize a second layer there and provide a compelling, relevant message or resource complete with the appropriate call to action. Persona profiling is especially powerful in this stage, simply because you can typically qualify a persona within 2-3 clicks, and it presents a very simple manageable framework for the marketers on the back-end to organize message and content specific to different personas.
3. Once the visitor identifies himself, you can start augmenting the profile with CRM data and use that data to drive the conversation further, perhaps using a channel such as email or even passing the lead on to sales, if appropriate.
4. When the customer is approaching a conversion point, such as a sale, predictive analytics and personalization provide the most value. Predictive algorithms have gathered sufficient data and, at this point, they can help you not just improve conversion rates but optimize them.
5. Once a conversion is complete, this customer is now an account, which calls for a very separate set of tactics. You can employ strategies such as “happiness scoring”, or provide each account with personalized information targeted to the types of problems they are solving. (You can use data points coming from your CRM or Marketing Automation systems and purchase history).
6. Whenever the customer is ready to purchase again, you can incorporate purchase history, together with behavior, and provide relevant offers, products and services that will help them get more value from your business. A powerful concept here is the ability to learn not just from web behavior, but also behavior in custom web or mobile apps. If you are a bank providing a mobile banking solution, you should be able to cross analyze features used in the mobile banking app with promotions researched on the website.

The chart below illustrates how the different types of personalization align with the funnel.



**Is it necessary to start at the top of the marketing funnel and make your way to the bottom?**

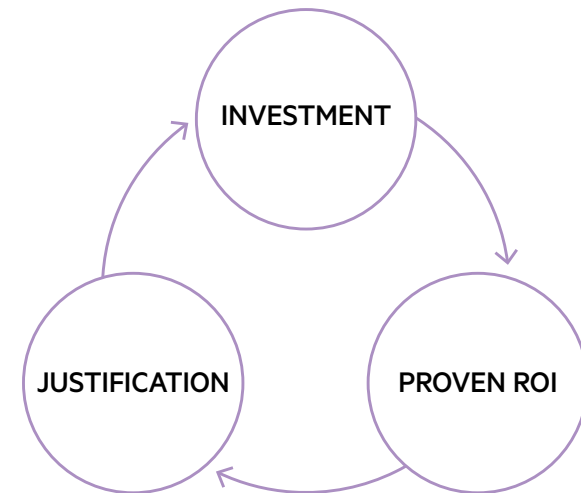
Not at all. In fact, most companies see the biggest ROI in personalization when it is applied much further down the funnel and based on purchase history. Looking at conversion rates and business goals is the best way to determine where to start.

When conversion rates are in the low single digits, doubling them might not be difficult, but it may have a much bigger effect on the overall business goal.

## An Agile Perspective to Picking a Personalization Strategy

Hopefully it is clear to you by now that personalization can be a large, long-term investment that requires a lot of analysis and content. You can decide to personalize based on the dozens of parameters, just arranging content for a few of them is a very large project. This is why agile marketing has a very big role when working with personalization.

Personalization requires investment, investment requires justification, and justification requires being able to show ROI. The better you are at gauging ROI for personalization tactics, the better decisions you can make. Below is an example of a very fast, agile, data-driven way to decide where to start with personalization.

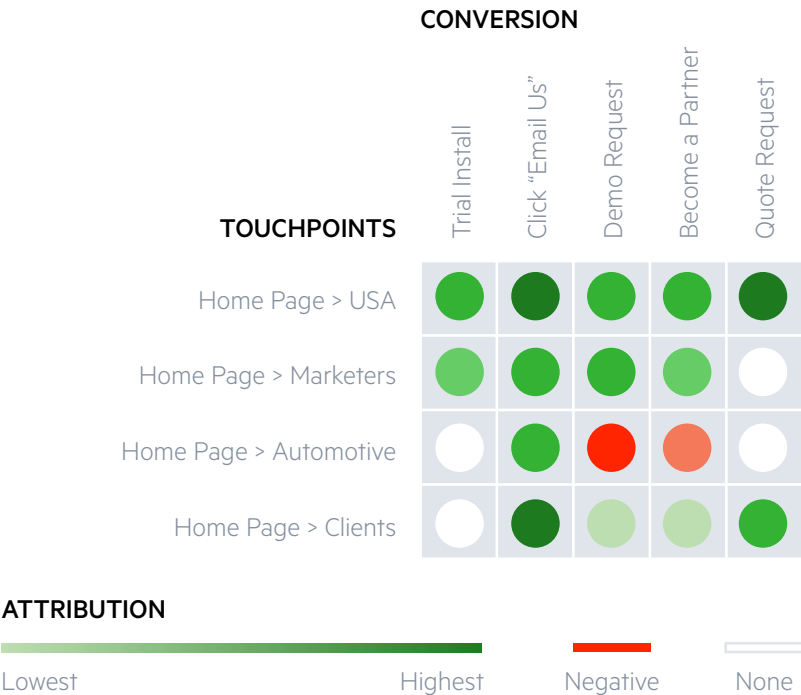


1. Pick a segment: It can be any segment, but make it specific—for example, a few accounts, a specific geographic region, a specific campaign.
2. Pick one resource to personalize: Make sure this is a highly visited resource such as a home page, so that will be seen by a significant number of people.
3. Pick the conversion rate or conversion rates that you are willing track: Use quote requests, purchases and so on. Try to define multiple conversion rates.
4. Personalize the resource and start tracking: Use attribution to the specific conversion to see if the personalized resource increases the chances of conversion. Compare this with the non-personalized version and with historic performance in that country or geography.
5. Give it a little time to collect a statistically significant set of data—as a rule of thumb, the average conversion time plus some kind of a constant (a few days to a week) or until you have a few dozen conversions. (There are more scientific methods to this, but in practice, a rule of thumb for 40-50 conversions usually works).
6. Move on to a different layer such as personas, but choose only one persona: Observe results and compare the conversion rate optimization and the conversion optimization of both.
7. If the small experiment with persona yielded better attribution (for example, better opportunity to increase conversion rate than personalization by geography) then invest more time in developing persona-specific messaging and content, then go back to geographies. If none proved to show a powerful optimization, form a hypothesis: you either have to improve personalization or invest some place else, but at least now you have a baseline for comparison.

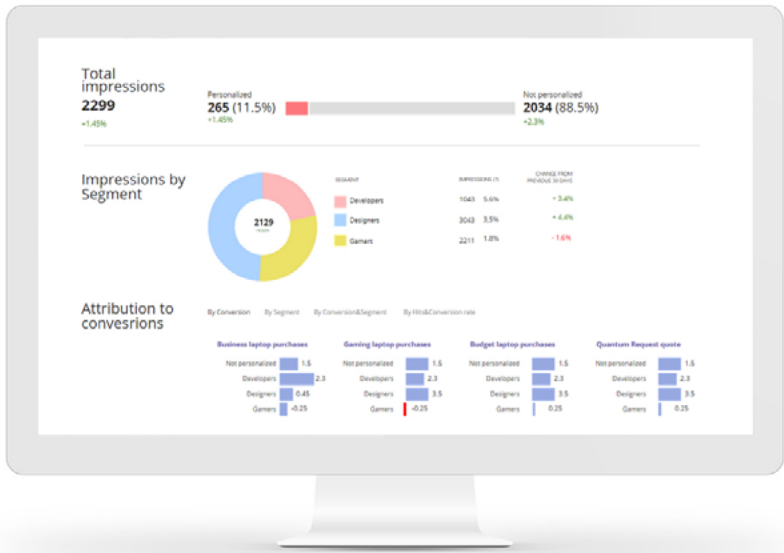
**NOTE:** Here we use the term **“Marketing Attribution”**. Marketing Attribution is a number that identifies how much a specific experience contributes to a conversion. The bigger the number, the better a resource works. It’s a great way to compare the effect of different personalization tactics side by side and according to the metrics they are supposed to impact. In the example below, you can see the personalization by geography is clearly more effective than personalization by industry.

## Conversion Testing

With the method below, you get to field-test multiple approaches. The benefit is you avoid executing on fully fledged geo-based personalization until you know it's the best approach. You test each approach, then fully invest in the winning one, the second best and the next one, guaranteeing a shorter path to conversion rate optimization. If you end up investing months in content to support a personalization approach that will have a mediocre effect on conversions, you may end up not even trying the correct one. If you hadn't validated with a different layer, it could have taken months to get to persona-based personalization, which may have been a better opportunity for you to begin with.



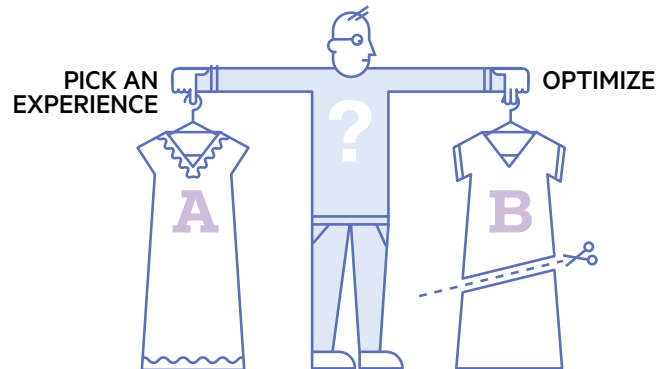
On the other hand, if for example geo-based personalization proves to be effective in this test, you will have the justification data to prove it to other stakeholders, and, therefore, you'll be better positioned to invest in content, better geo-targeting capabilities, perhaps even better local offerings for the locations in which it works best. This is where analytics can influence your overall business strategy— running a small test and returning the attribution numbers associated with it gives you the tools for data-driven decision making that may have been lacking in the past.





## So How Do You Choose Where to Start?

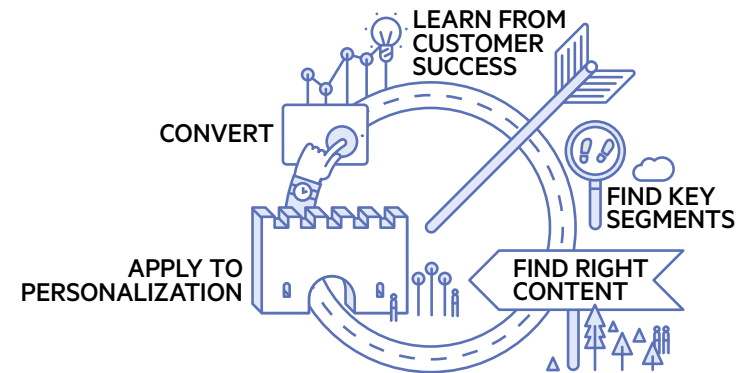
This is a difficult question to answer and we've indicated two methods:



### 1. Educated Guessing

An educated guess is still a data-driven approach. Maybe a specific type of persona buys much more than the others. Or, sales in a specific geographic region are much higher than others and your business analysts know that. This type of data can help you form an educated guess on what to do to improve.

Even if you don't have a specific idea about who to target, you can always look at conversion rates and guess where your biggest opportunity to improve is. Perhaps your conversion from anonymous to known lead is just 1 percent, while the rest of your conversions down the funnel are in the double digits. This would clearly indicate that increasing this conversion even by one percent could provide a great impact to the top-line. Experimenting on top of funnel personalization tactics such as landing page personalization, personalization by geography and personalization within the first 1-2 clicks might yield the best result.



### 2. Predictive Guessing

Another way is to have an algorithm guess where your biggest opportunity is. This is where predictive analytics come into play. Predictive analytics look for insight in the data that will tell you at exactly which level you can influence a conversion rate.

Important questions are “Who do I target?” and “What do I target them with?” The answers will lead to two options: an educated guess or analytics-derived recommendations.

# Challenges

If you tackle personalization on a one-off fashion, such as targeting just one banner to one persona, this process is relatively easy: pick a segment, pick a message and go. You may already have some technology in place to do that. Once the analytics prove this has been successful and there is a big opportunity for you in persona-based targeting, you will have to think about how to scale.

**42%** of companies rank Strategy as the most important Building Block for building a brilliant Customer Experience ➡

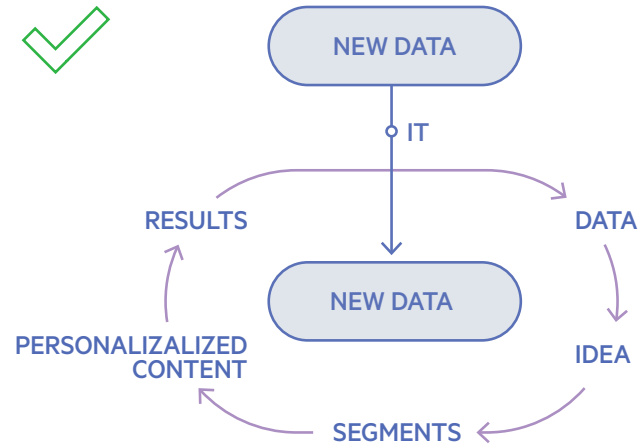
This brings us to the next section: solving the challenges of personalization. When working with personalization you typically encounter five different types of challenges:

- ➔ Technology
- ➔ Scale
- ➔ Data
- ➔ Process
- ➔ Privacy & Compliance

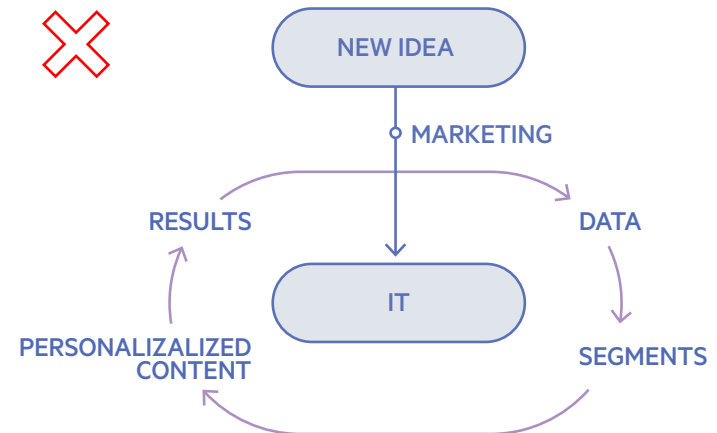
## Technology Challenges

Typically, technology challenges are not created by the lack of technology, but rather by lack of adoption. In its essence, personalization is a connection mechanism between systems of record and systems of engagement. So, while personalization is a simple concept (show different content to different people), it's technologically challenging to have a single connection mechanism between any and all systems of record that can transform the experience driven by systems of engagement.

### THIS IS GOOD:



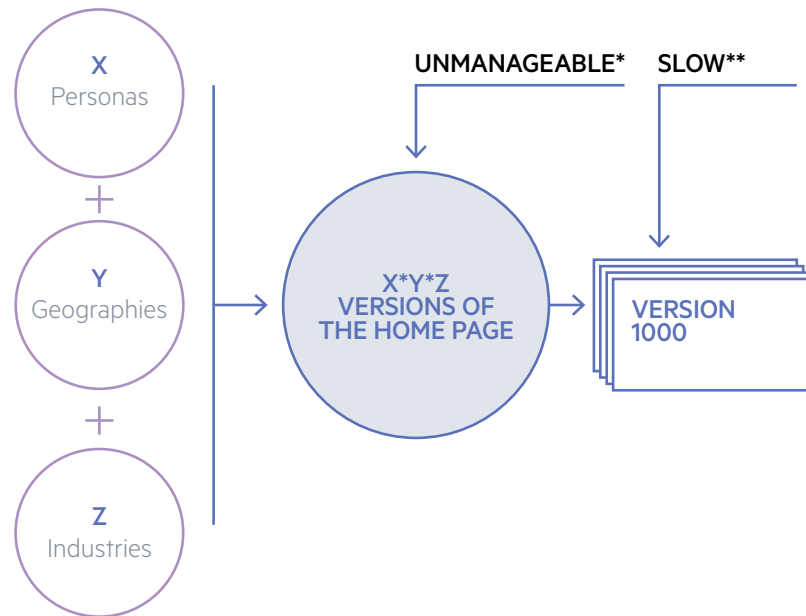
### THIS IS BAD:



There are a few core capabilities you should look for when adopting personalization technology:

1. **Ability to segment according to various implicit and explicit criteria:** You shouldn't be locked-in to one type of segmentation, as you'll want to iterate in an agile way and test the impact of different strategies on your top line. Some solutions only offer one type of personalization, such as "Recommended Content" or a similar concept. While this is powerful, it has diminishing returns and you need to be able to add layers to it so your conversations from one-to-many truly start converging into one-on-one.
2. **Ability to extend segmentation and incorporate custom criteria:** You will ultimately need to embed any proprietary company data within personalization. The data you own is extremely valuable; a proper extensibility model should enable you to tap into the sources of customer data that could provide the most value—account holder classification, credit score type, purchase history, membership type and so on. As you will see, whenever discussing custom criteria, the examples become more and more industry- and use-case specific.
3. **Ability to simplify segmentation, especially through means of persona profiling:** This capability helps you achieve a maintainable structure that aligns well with how most organizations tackle marketing projects. Considering the same set of personas for UX, message development, positioning, demand generation and personalization ensures that you have a comprehensive end-to-end strategy
4. **Ability for business users to control segmentation:** Being locked to one set of rules and only developers can change them impedes adoption throughout the organization. It is just as important to enable business users to perform segmentation and targeting as it is to give them the power to write content. Simply put—personalization is something that needs to constantly be iterated. Empowering business users to drive personalization campaigns quickly is one of the most important steps to adoption.
5. **Ability for business users to control personalized presentation:** By providing this ability, iterations on content can happen quickly and seamlessly. This is explored further in the next section, "Content Management and Personalization".
6. **Integration with popular third-party systems:** The more systems supported, the easier your adoption curve. Check if your CRM or marketing automation system is supported, but in case not, validate if this integration is possible with an extensibility model and an API.
7. **Ability to emulate the personalized experience on multiple devices and for multiple types of users:** This is important to test the end results as they are being built, and for collecting feedback or making a case for personalization campaigns.
8. **Ability to connect to analytics:** Because there are a million ways to personalize, you typically don't know which one will be most effective, and cannot physically support more than a finite set of personalization options. Therefore, the connection to analytics is crucial. Being able to gauge how certain personalized experiences are impacting conversions is the best way to drive iterations and continuously improve strategy where it matters most. (More of this is explored in the section "Personalization and Analytics").

## Scalability Challenges



\* unless every piece of content is classified by persona, geography and industry

\*\* unless properly cached and optimized

Scalability is probably the biggest challenge in employing an organization-wide personalization strategy. Consider the following:

1. **Performance scalability:** Content management systems scale to meet peak traffic by capturing a static snapshot of your website in memory and serving it. This process is known as caching. Otherwise, if the system has to talk to a database every single time, it will not be able to support large numbers of visitors. If a website must change for every user based on personalization, this can become a problem—it's difficult to capture a static snapshot of something very dynamic in nature. The personalization platform you choose must be able to support scalability. Here are some key considerations:

If your website has to talk to a database to display content every single time, personalization will be unstable in a production environment. Mark server-side caching as your primary caution when looking for personalization solutions

- a. **Support for server-side caching:** As a general rule, if your system does not support caching for personalized versions, don't expect it to support more than a handful of concurrent users. If your website has to connect to a database server to render content every single time, personalization will be unstable in a production environment. Mark server-side caching as a primary requirement when looking for personalization solutions.

- b. **Support for asynchronous logging:** If a system is configured to track behavior, it can throttle a database and quickly create a point of failure. Imagine 100 users clicking on a piece of content being logged into your database at the same time. As traffic grows, you need to ensure proper logging and buffering tactics are employed. A popular solution is to offload storage of customer journey data to a cloud-based solution specifically optimized for the high volumes of data, that won't create additional requirements for your datacenter.
- c. **Existing benchmarks:** Look for various benchmarks such as how long it takes to associate a user with a particular persona profile. As you are building out your personalized experiences, make sure to do proper load and performance testing to ensure personalization is not going to be bottlenecked.

2. **Content management scalability:** This is a problem rarely discussed, but it carries great significance. As the sophistication of your digital marketing grows, you not only see an increase of traffic and have to account for it with scalability, you also see increases in the number of users who create those experiences. It's one thing to personalize one page for one segment, but it's a completely different when you have five personas, six geographies, eight divisions, 20 sites and 1,000 different places you want to personalize. When you get to that point, you need structure. In fact, lack of structure is one of the biggest reasons so few organizations do personalization right today. Read more about this in the **"Personalization and Content Management"** section.

## Data Challenges

Data challenges fall under two categories:

1. Inability to utilize necessary data points: Perhaps you want to use Social Open Graph Data, CRM data, data coming from a proprietary system, purchase history data or any other data point. A common objection is one system doesn't sync to another, or a data point is not available to you for personalization. There are three ways to tackle that problem:
  - Use built in connectors as much as possible: Vendors aim not only to connect to data, but to expose a friendly business interface; having a business interface to your data is the most scalable way to use it.
  - Use any integrated extensibility in your personalization engine: Every one of your systems should be able to expose data. Even if some don't, you should be able to open a database connection and tap into the data. **Data is by definition accessible.** If your personalization engine has an extensibility model connecting it to a data source, real-time access is always doable—just make sure to follow best practices.
  - Create a more comprehensive integration strategy where all your data points are integrated in a central place, such as a Customer Journey Database: Ideally, this central location will keep track of identities to manage data consolidation. You can prioritize the steps to that integration—first integrating website data, then CRM data, then purchase history and so on. Define those steps and their priority, and, as a general rule, start with data you will be losing first, then amend data you already have and need to import.



2. **Inability to properly identify users** Most of your users will be anonymous; a complete 360-degree view including data from various channels, social networks and systems is only possible if visitors identify themselves. Google's wealth of behavior data enables you to target ad content; however, Google spends billions of dollars creating free offerings (Gmail, Google Drive and Android) to keep users in the Google ecosystem. Similarly, as a marketer, you must give your visitors compelling reasons to identify themselves or provide email addresses, links to their social accounts and so on.

No matter how sophisticated a personalization system is, it cannot guess the identity of a user, nor can it guess the various other identities a person uses online. This is precious data that must be earned with the right type of content. How do you earn it? Here are a few ways:

- Provide compelling gated content such as webinars and whitepapers
- Offer membership benefits and various digital products
- Use social login and various social tools and apps
- Create communities that offer valuable relationship or knowledge opportunities

Once visitors identify themselves, most systems will consolidate the data from various sources; this process is crucial, because, as a marketer, you need to know what inspired the visitor to convert.

**It's important to know what process led to a visitor identifying himself (converting), as it is one of the keys to implementing personalization and automation.**

## Process Challenges

Personalization technology exists; it has for a while. Still companies don't use it as well as they could. This is a process challenge and not necessarily a technology challenge. There are various ways to resolve this challenge, including:

1. Ensure any personalization framework adopted is not continuously reliant on IT support. Business users should be able to make quick decisions on iterations, and create and measure them.
2. Ensure business users are incented to work with personalization—incorporate personalization campaigns in the marketing calendar, allocate two-week windows for personalization tests and include the number of personalized page views as a tracked success metric. By setting in place the right processes and KPIs, you can ensure teams are working together to create a better, more layered personalization experience that can be taken from web, to mobile and beyond.

## Privacy and Compliance Challenges

While customer comfort level for sharing data has increased over the years, and analytics solutions are a de facto standard for any web experience, you still need to be completely transparent about how and why you collect user data. This is your privacy policy.

In addition, personalization engines typically use cookies to track user behavior. There are a number of regulatory restrictions for using cookies. Some countries, especially in the European Union, have legislation that could require you to incorporate tracking consent before implementing personalization.

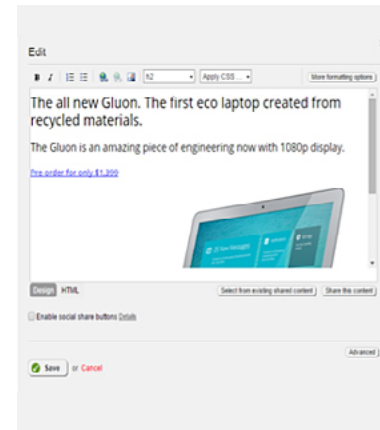
Various recent data breaches have increased consumer sensitivity to how their personal information is gathered, stored and used. Still, the majority of customers expect, and want, businesses to know their preferences and needs. You need to work organization-wide to create the right type of balance: delight your customers with personalized offerings, while keeping their data secure.

# Personalization and Content Management

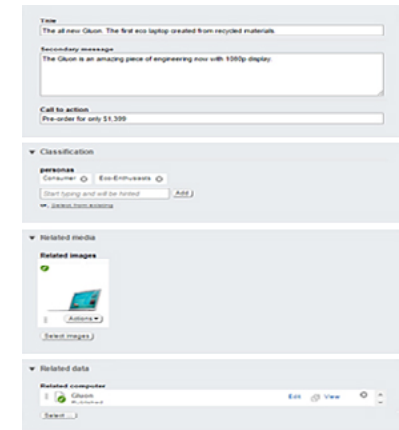
Solving the challenges of personalization requires Content Management. The atomic elements of every digital experience is strong, sharable, concise pieces of content. We call content “atomic” because a piece of content is a small, basic, indivisible element that is used to build the broader customer experience. You have a lot of content right now, but you also know much more needs to be created to support personalization, which takes time and effort. If you don’t optimize content for personalization from the get-go, it will be difficult to personalize it, even for a handful of segments.

A simple rule is to **separate presentation from content**. This is a well-known tactic and it means you shouldn’t define content by where it’s presented. Imagine having a duplicate copy of your logo on every single page. Not only do you need to add the logo every time a page is created, but you would have to change every page if you happen to change the logo. The solution is simple: have one central copy of the logo and decide how it displays using a template. Same is true for content; a news item is a news item, and if it exists in 700 pages, it doesn’t matter. Once you change it, it changes everywhere. This is a valid rule for personalized content, as well. It needs to be reused across pages, channels and personalization segments. Adding parameters to content, such as titles, messages, descriptions, graphics and more complex parameters such as geography filters, persona-specific messages and calls to actions is much more maintainable than creating new content for each geography and persona.

Often content is first unstructured, then becomes unmanageable as it increases, so you move to a structure. Below is a simple example showing the difference between managing structured and unstructured content.



UNSTRUCTURED CONTENT



STRUCTURED CONTENT

Here is the basic process you can follow for creating structure in your content:

- Create your content as a structured content type –this means a type that has fields or attributes such as Title, Primary Message, Content, Image, Category and so on.
- Create a list of the data points impacting personalization, (for example, geography, industry, persona, lead score and so on).
- With each data point, decide the appropriate behavior–would content be filtered by this criterion or will content itself be modified. For example if you have webinars for different audiences, you would want to filter this: a marketer will see a list of webinars for marketers, a developer will see a list of webinars for developers. For data points that modify the content, for example, you want to change the call to action based on whether a person is already a customer (“Upgrade

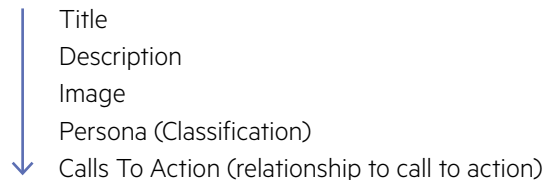


Now”) or not yet a customer (“Buy now”), you can create two different fields in the content type. Now we have call to action for customers and call to action for non-customers.

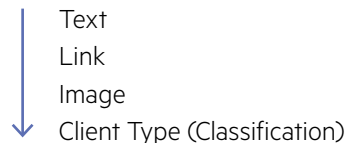
- For the data point that will trigger filtering—create a taxonomy. For each that will change content, create a field or a relationship to a new bit of content.

This is how this structure may look:

#### WEBINAR (CONTENT TYPE)



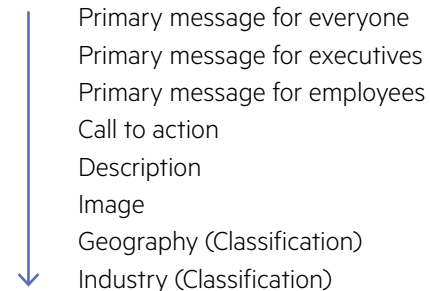
#### CALL TO ACTION (CONTENT TYPE)



Now you have a central list of all calls to action that can be filtered according to the case, and you have a central list of webinars. You don't care if 1,000 personalized pages use them, because you know they are consistent.

For example, a corporate bank might have promotions displayed in various banners across channels. These promotions can be personalized by geography, industry and persona. Here is what the banners might contain:

#### BANNER



With this structure, creating a new banner takes minutes, it is just a matter of filling in all those data points. A banner can target multiple personas and multiple geographies, and the content author can easily determine that. Looking at the personalized versions of each page you can now configure the filtering—U.S.-based pages filter only the latest promotion for the U.S., manufacturing companies see only promos for manufacturing; however, depending on whether the user is an executive or an employee, the message on each will change. In this case, you naturally personalize when you create content just by categorizing. Your content authors have the structure and process to do that and it becomes natural to them; they can now create as many promotions as they like. Your digital marketing team on the other side can decide exactly where this content gets displayed, which message it shows, and for which persona.

This is where a powerful content management system truly shines. Personalization technology is not just limited to the ability to segment and change content, but also to capabilities to organize all of your content in structures and relationships so that you can manage your personalized versions separately from your content, and reuse that content in a meaningful, strategic way.

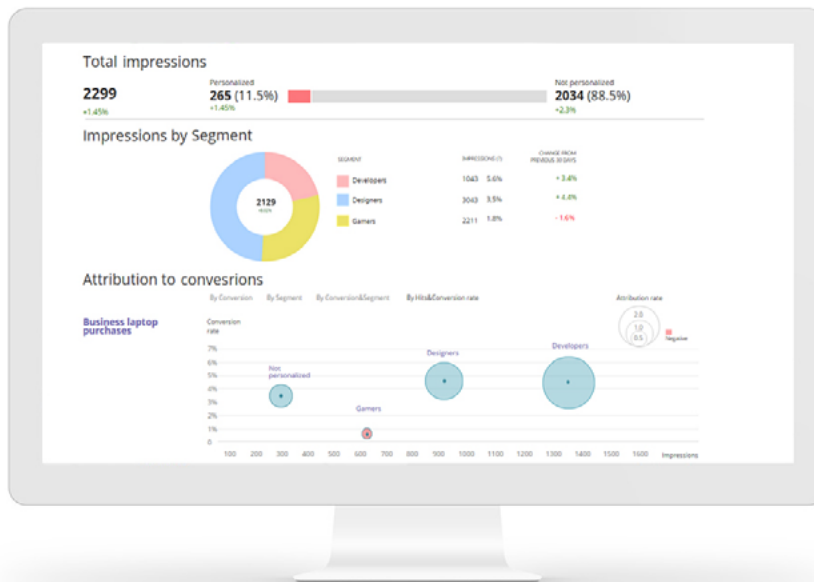
## BEST PRACTICES FOR CONTENT MANAGEMENT

- Use structured content as much as possible: In the digital world, it's tempting to put content together in an unstructured way—using an HTML editor to add content, titles, different paragraphs and so on, or using a drag-and-drop interface to define different sections. Structuring content, on the other hand, forces you to decide exactly what information to display and how. It takes a bit more initial setup, but exposes great scalability benefits that make it a natural choice for true omni-channel personalization.
- Separate presentation from content: Don't decide on the personalized message only where the message is displayed; personalized content should live independently on its own and be ready to be reused.
- Use custom classifications: Personalization criteria often require information to be filtered out. As an example, you might want to show different banners to different industries. Look for systems that enable you to filter by industry, geography, persona, client type or any other criteria, and make sure you embed this in your information architecture.
- Enable caching: Although this guide is not intended to be technical, you must be familiar with the term “caching” when talking to your IT team. Because multiple personalized elements per page are the most scalable way to personalize (showing different phone numbers to different geographies, different banners to different personas, and so on), and because personalization is most effective in high-volume assets such as the home page, if you don't use proper performance techniques, your visitors might end up experiencing slow performance—or worse—your site might go down. Make sure those techniques are in place before going live with personalization.
- Focus on personas as a personalization criteria: In the race toward one-on-one conversations, simple strategies have proven to be extremely valuable because they bring better structure. When you have only three to five personas, it's easy to think about content for building separate messages, to serve them well. Persona definition is a crucial step for every marketing organization, and it's a meaningful way to bridge cross-functional teams and have them work to serve the buyers' best interests. Incorporate and automate the process of persona definition and profiling within your personalization environment.

# Personalization and Analytics

Personalization is a big, long-term investment; a few short-term initial hurdles or failures can hurt the overall long-term strategy. This is where analytics come into play: they can provide you with numbers to validate whether personalization is effective or not, and they help you execute on personalization in a leaner, more effective way. There are three major areas in which analytics can help:

1. Assists with profiling: Without a simplified framework such as personas, personalization based on browsing behavior will simply not be possible on a large scale. The right solution can help you classify visitors into multiple personas, based on a scoring model, and provide insight into who your top personas are, what content they prefer and how you can improve it.
2. Connects personalization efforts to business results: Techniques such as marketing attribution help you determine where to invest, which resources add value and which don't. This is especially important when building a personalization strategy, as quick iterations on segmentation and content need to be measured and compared against each other to provide the right justification and ROI understanding to invest and improve.
3. Ability to identify segments: Predictive analytics can discover personalization opportunities and help you optimize your efforts. Instead of guessing which geography or page you should personalize, an analytics engine can “reverse-engineer” every successful engagement, figure out what made it successful and make a recommendation for your next personalization effort.



## BEST PRACTICES FOR CONTENT MANAGEMENT

- **Integrate data from all channels:** Customers see their journeys as connected experiences, and you should look at them the same way. Interactions on a mobile app are typically related to interactions on the website and through email; use these connections to inform your personalization decisions.
- **Measure conversions by demographic:** In case you are interested in targeting a specific demographic, it might make sense to measure the conversions based on this demographic first and see which one provides the best opportunity.
- **Set identification as a conversion goal:** Whether it is through form submission, whitepaper download, log in or any other method, you should have one unified goal to improve the number of known users you have in the system. Simply being aware of that metric will help you provide better resources and drive better engagement with your visitor, as well as improve the effectiveness of channels such as email.
- **Measure personalization against both short- and long-term goals:** Short-term goals such as getting a user to download an asset or register for a webinar provide results quickly. Once you set those goals, it takes a few days to see conversions and estimate how they are performing. Have a good mix of short- and long-term goals when you measure the effectiveness of personalization. Short-term goals can provide results more quickly, so you have a fast first feedback loop, but long-term goals such as a sale or customer lifetime value ultimately matter most.

## Bridging Channels

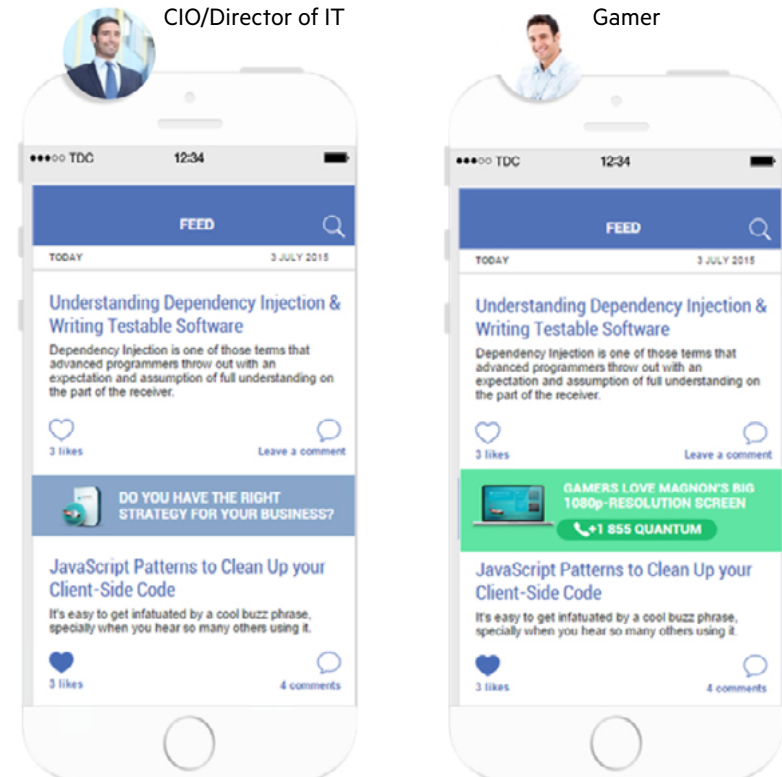
There are two very crucial guidelines for businesses today, and on a first glance, they seem a little bit contradictory:

1. You must ensure a consistent message across channels
2. You must personalize the message to each visitor's context on every channel

But how can a message be personalized as well as consistent? In the past, when there was one message and one channel—the web—this was easy. One message equals a consistent message—no problem. When personalization comes into play, we solve this problem with easy-to-manage approaches such as personas. Marketers can define the personas and the target messages for them, and these messages can be consistent for a specific persona.

But what happens if you add another channel such as a mobile app? Yes, your mobile app can completely disregard your personalization efforts, and your persona profiling could completely disregard mobile app behavior, but you end up compromising both message consistency and relevancy. But what if you could use the same personalization engine between your apps, your websites and any other applications?

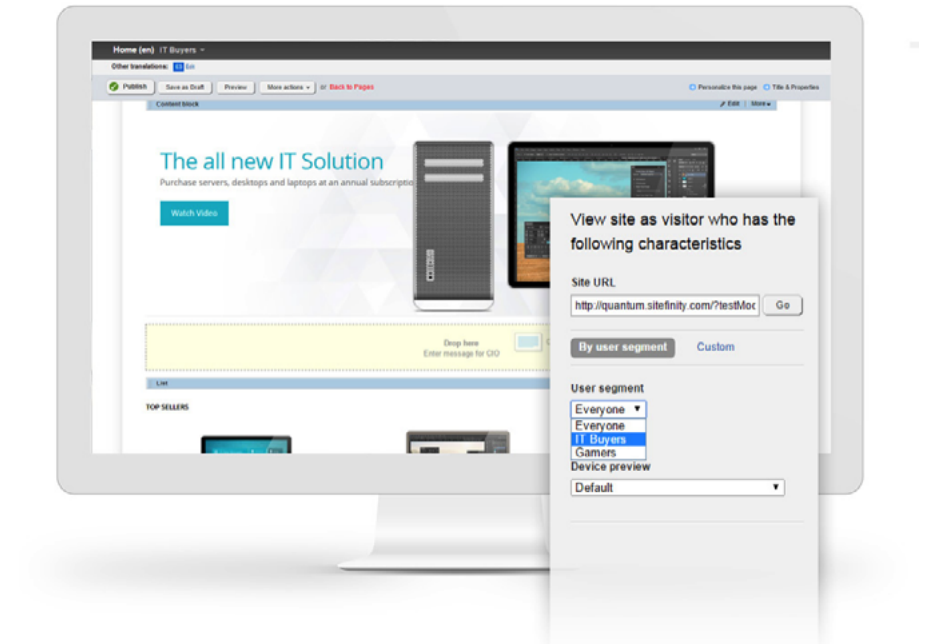
Here is where integrated personalization and analytics come into play. The channels and siloes are quickly converging, and businesses are heavily investing in new digital offerings, especially in mobile. But this is also true for other channels, as well, such as email, social, print and so on. A critical requirement for any personalization effort is to provide the opportunity to integrate the same personalization infrastructure beyond a single channel, covering multiple websites, applications, mobile and more.



Any of your communication channels can become a powerful marketing platform that showcases relevant offers and promotions to your users, and at the same time, add value based on the specific problem it solves. This is exactly the business model behind digital giants such as Google and Facebook, and considering a personalization strategy that can bring together websites, mobile apps, custom applications and various other channels carries great promise for the future.

# Mastering Personalization

As you learn and internalize the techniques outlined in this paper, you need proper tools to apply them. The Telerik® Sitefinity™ Platform provides the ultimate toolset for a personalized experience. It includes a Web Content Management Platform and a Marketing Analytics Solution that work together as the brain and muscle of an intelligent personalization machine, providing tools to manage, organize and deliver personalized content on any channel, and the intelligence to measure and improve the impact of personalization. The platform incorporates features such as dynamic content, personalization, persona profiling, lead scoring, marketing attribution, personalization analytics, geoIP detection and data integration with third-party systems such as Salesforce.com, Microsoft Dynamics, Marketo and Oracle Eloqua.



To learn more, try it for free or request a demo go to [www.sitefinity.com](http://www.sitefinity.com)

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